1.)

MeasureX<- c(24.23, 25.53,25.41,24.14,29.62,28.25,25.81,24.39,40.26,32.95,91.36,25.99,39.42,26.71,35.00)

**For outliers-**

boxplot(MeasureX)

**For Mean-** mean(MeasureX)

**For Standard Deviation-** sd(MeasureX)

**For Variance-**

n<-length(MeasureX)

var(MeasureX)\*(n-1)/n

2.) i) What is inter-quartile range of this dataset? (please approximate the numbers) In one line, explain what this value implies.

Ans-

inter-quartile =Upper quartile - lower quartile

12-5=7

Inter-quartile is a measure of how far apart the middle portion of data spreads in value.

(ii) What can we say about the skewness of this dataset?

Ans- Positive or Right Skewed

(iii) If it was found that the data point with the value 25 is actually 2.5, how would the new box-plot be affected?

Ans- Standard Normal Distributed plot

3.) (i) Where would the mode of this dataset lie?

Ans- 5 -8

(ii) Comment on the skewness of the dataset.

Ans- Positive or Right Skewed

(iii) Suppose that the above histogram and the box-plot in question 2 are plotted for the same dataset. Explain how these graphs complement each other in providing information about any dataset.

Ans-

4.) Ans- pnorm(1,mean=0,sd=1)

5.)

(i) What is the most likely monetary outcome of the business venture?

Ans-

outcome<-(-2000\*.1+-1000\*.1+0\*.2+1000\*.2+2000\*.3+3000\*.1)

the most likely outcome is $2000 as the highest weighted average is this one (2000\*.3)

ii) Is the venture likely to be successful? Explain

Ans- Yes as the weighted average is positive, the venture will be successful.

(.2+.3+.1)=.6

(iii) What is the long-term average earning of business ventures of this kind? Explain

Ans-800

outcome<-(-2000\*.1+-1000\*.1+0\*.2+1000\*.2+2000\*.3+3000\*.1)

(iv) What is the good measure of the risk involved in a venture of this kind? Compute this measure

Ans-A Good measure of the risk involved in a venture of this kind is Standard Deviation.